

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with deleted material crossed out and new material underlined to show the changes made.

1. (Currently Amended) A computer readable medium storing a computer program for execution by at least one processor, the computer program for logging events for a plurality of applications that operate on an operating system of a first computer, the computer program comprising sets of instructions for:

receiving a request from an application of said plurality of applications to create event objects associated with events of the application that have not been logged;

~~in response to said request, creating,~~ in response to said request, the event objects in a first memory space that is separate from a second memory space in which said application operates;

~~from the application, receiving,~~ from the application, temporal data and other data regarding the events;

storing the received data regarding the events in the event objects; ~~and~~

processing the stored data regarding the events in order to produce processed event data for display on a web browser of a second computer that is connected to the first computer through the Internet, wherein said processing ~~the stored data further~~ comprises processing the stored data regarding a plurality of the events in order to group the stored data of the plurality of the events into a plurality of hierarchical sets of events, wherein each hierarchical set comprises a parent event and at least one child event~~[[,]]; and~~

~~for a set of said hierarchical sets of events, defining,~~ for a set of said hierarchical sets of events, a nested hierarchical display of event data for display on said web browser, said nested

hierarchical display displaying the parent events at one aligned level in the hierarchy and displaying the child events at another aligned level in the hierarchy under the corresponding parent events,

wherein said receiving the request, said creating, said receiving the data, said storing, and said processing are performed by an event logging mechanism that is part of said operating system and operates independently from said application on the first computer on which said application operates.

2. (Currently Amended) The computer readable medium of claim 1, wherein the computer program further comprises a set of instructions for checking whether event logging is turned on for each of the events.

3. (Currently Amended) The computer readable medium of claim 2, wherein a plurality of event objects are created for the plurality of events, wherein ~~said~~ the sets of instructions for creating, receiving the data, and storing are performed for each of said plurality of events having event logging turned on.

4. (Previously Presented) The computer readable medium of claim 1, wherein the set of instructions for processing comprises a set of instructions for analyzing said event objects after event logging is turned off.

5. (Previously Presented) The computer readable medium of claim 4, wherein the set of instructions for processing further comprises sets of instructions for:

allowing user definition of hierarchical levels of granularity of events of event objects that are analyzed; and

allowing user definition of contexts for differentiating repeated occurrences of events deemed identical by the defined contexts.

6. (Previously Presented) The computer readable medium of claim 5, wherein the set of instructions for processing further comprises sets of instructions for:

grouping events into hierarchical subgroups; and
grouping events by context.

7. (Previously Presented) The computer readable medium of claim 6, wherein the set of instructions for processing further comprises sets of instructions for:

traversing through the hierarchical subgroups until a subgroup of finest granularity is traversed;

subdividing said events into further subgroups;
computing statistics for each subgroup while traversing; and
displaying said statistics.

8. (Previously Presented) The computer readable medium of claim 7, wherein the set of instructions for processing further comprises sets of instructions for:

aggregating events deemed identical by virtue of the events' hierarchical position into an aggregate;

computing statistics for each aggregate; and
displaying said statistics for each said aggregate.

9. (Previously Presented) The computer readable medium of claim 7, wherein the set of instructions for processing further comprises sets of instructions for:

aggregating events deemed identical by virtue of the events' context into an aggregate;

computing statistics for each aggregate; and
displaying said statistics for each said aggregate.

10. (Currently Amended) A first computer comprising computer readable storage for storing:

an operating system comprising an event logger; and

a plurality of applications operating on said operating system,
said event logger operating independently of said applications,
said event logger for receiving input through a web browser of a second computer to
enable event logging, wherein said second computer is connected to said first computer through the
Internet,

wherein when said event logging is enabled, the event logger (i) identifies a set of
events for a particular application that generates web pages, responds to selections received through
said generated web pages, and operates on said operating system; (ii) generates an event log; and
(iii) records event data regarding the identified set of events in the event log, said event log
generated and said event data recorded in the event log without referencing any event logs of said
application;

wherein the set of event data relates to at least one of a request for a web page,
generation of the requested web page, and a request received through a selection of an item of the
generated web page,

wherein said event logger performs the identifying, generating, and recording on said
first computer on which said particular application operates,

wherein each event in the set of events is enabled or disabled separately, and

wherein when said event logging is disabled through the web browser of said second
computer, said event logger ~~foregoing~~ foregoes the identifying, generating, and recording on said
first computer on which said application operates.

11. (Previously Presented) The computer of claim 10, wherein said event logger records
the event data by recording start time, end time, and other event data into an event object for each
event in the set of events.

12. (Previously Presented) The computer of claim 10, wherein said operating system comprises a foundational layer, wherein said event logger operates on said foundational layer.

13. (Previously Presented) The computer of claim 12, wherein said foundational layer is a programmable framework.

14. (Previously Presented) The method of claim 39, wherein said single computer is a first computer, wherein said event logging mechanism is for receiving input through a web browser of a second computer to enable event logging, wherein said second computer is connected to said first computer through the Internet.

15. (Currently Amended) The method of claim 14, wherein when said event logging is disabled through the web browser of said second computer, said event ~~logger~~ logging mechanism foregoes the creating, analyzing, grouping, and defining on said first computer on which said application operates.

16. (Currently Amended) The computer of claim 10, wherein when said event logging is enabled, said event logger ~~is further for generating~~ generates a plurality of event objects and ~~analyzing~~ analyzes said event objects in order to generate an analyzed result for display on said web browser.

17. (Previously Presented) The computer of claim 16, wherein said event logger is configured to analyze said event objects based upon hierarchical and contextual groupings.

18. (Previously Presented) The computer of claim 17, wherein said event logger is configured to aggregate said event objects deemed identical based upon at least one of said hierarchical and contextual groupings.

19-22. (Canceled)

23. (Currently Amended) A computer comprising computer readable storage for storing:
an operating system comprising an event logger; and

a plurality of applications for operating on said operating system,

the event logger for (i) receiving a request to create an event log, (ii) recording event data for each of a plurality of events of the plurality of applications in a first memory space that is uniquely allocated for the event logger and is separate from a second memory space allocated for the plurality of applications, (iii) grouping a plurality of said event data into a plurality of hierarchical sets of events, wherein each hierarchical set comprises a parent event and at least one child event, (iv) analyzing said event log according to hierarchical groupings, and (v) for a plurality of said hierarchical sets of events, defining a nested hierarchical display of event data that displays the parent events at one aligned level in a hierarchy and displays the child events at another aligned level in the hierarchy under the corresponding parent events,

wherein said event logger is turned on, turned off, and configured using a web browser.

24. (Previously Presented) The computer of claim 23, wherein said operating system further comprises a framework, said framework comprising said event logger.

25. (Canceled)

26. (Previously Presented) The computer of claim 23 further comprising a first area of memory allocated to a particular application of said applications, a second area of memory allocated to the event logger, wherein said first area of memory allocated to the particular application is separate from the second area allocated to the event logger.

27. (Previously Presented) The method of claim 14, wherein said event logging mechanism is turned on, turned off, and configured using the web browser of the second computer.

28. (Previously Presented) The computer of claim 23, wherein said event logger is further for allowing a user to enable and disable event logging for each event in the plurality of events, wherein said recording event data is performed for each event that has event logging enabled.

29. (Previously Presented) The computer of claim 23, wherein the operating system comprises a framework upon which applications are executed.

30. (Currently Amended) An event logging method comprising:

for each of a plurality of events that needs to be logged within a plurality of applications operating on an operating system of a computer:

receiving a request to create an event log;

recording event data for each of a plurality of application events in a first memory space that is uniquely allocated for event logging, said first memory space separate from a second memory space allocated for the plurality of applications;

for each application in said plurality of applications, grouping a plurality of said event data into a plurality of hierarchical sets of events, wherein each hierarchical set comprises a parent event and at least one child event; and

for a plurality of said hierarchical sets of events, defining a nested hierarchical display of event data that displays the parent events at one aligned level in ~~the~~ a hierarchy and displays the child events at another aligned level in the hierarchy under the corresponding parent events, wherein said recording, grouping, and defining are performed by an event logging mechanism that is part of the operating system of said computer and that runs independently from said applications on said computer,

wherein each of a plurality of application events comprises an enable/disable state, wherein ~~a~~ the disable state of a particular event precludes the event logging mechanism from logging said particular event.

31. (Previously Presented) The method of claim 30, wherein the operating system comprises a framework, said framework comprising the event logging mechanism.

32. (Previously Presented) The method of claim 30 further comprising checking, for each event identified for a particular application in the plurality of applications, whether event logging is enabled.

33. (Previously Presented) The method of claim 30, wherein said nested hierarchical display is for display in a web browser.

34. (Previously Presented) The method of claim 30, wherein the first memory space is a memory space that is allocated solely for event logging.

35. (Previously Presented) The method of claim 30, wherein the events that are logged by the event logging mechanism have not been previously logged by any other application.

36. (Previously Presented) The method of claim 30, wherein information placed in the event data is first logged by the event logging mechanism.

37. (Currently Amended) The method of claim 39, wherein each of a plurality of events comprises an enable/disable state, wherein ~~a~~ the disable state of a particular event precludes the event logging mechanism from logging said particular event.

38. (Previously Presented) The method of claim 33, wherein said computer is a first computer, wherein said web browser executes on a second computer that is connected to said first computer through the Internet.

39. (Currently Amended) A method of logging events for an application, said method comprising:

receiving a request from the application to create an event log;

receiving a set of events generated by said application;

creating a corresponding set of event data in a first memory space that is separate from a second memory space in which the application executes;

analyzing the set of event data by determining a procedural level at which each event is executed in the application;

hierarchically grouping said set of event data into a plurality of groups based on said analysis of the set of event data, wherein each event executed at a same procedural level in the application is grouped in a same group; and

defining a hierarchical display of event data comprising a nested hierarchical presentation of data for each of said events based on said grouping, said hierarchical display presented in a web browser, wherein said receiving a request, receiving the set of events, creating, analyzing, grouping, and defining are performed by an event logging mechanism that is part of an operating system that runs independently from said application on a single computer on which said application executes.

40. (Previously Presented) The method of claim 39, wherein said web browser is a web browser executing on said single computer.

41. (Previously Presented) The method of claim 39, wherein said single computer is a first computer, wherein said web browser executes on a second computer that is connected to said first computer through the Internet.

42. (Previously Presented) A computer comprising computer readable storage for storing:
an operating system comprising an event logger; and
a plurality of applications operating on said operating system, wherein at least one particular application is for generating web pages and responding to web page selections received through said generated web pages,

wherein the event logger is for (i) receiving a request from the particular application to create an event log, (ii) functioning interoperably with but separately from said applications, (iii) identifying a plurality of event data for a plurality of application events of the particular application,

said application events comprising a request for a web page, generation of the web page, and a request received through a selection of an item of the generated web page, (iv) storing the event data in the event log, (v) analyzing of said event log according to hierarchical grouping,

wherein each of said plurality of application events comprises an enable/disable state, wherein the disable state precludes the event logger from creating an event log, wherein the identifying and storing are performed for each event that has an enabled state.

43. (Previously Presented) The computer of claim 42, wherein said storing said event data comprises storing, for each event that is logged, a start time, end time, and information regarding the event.

44. (Canceled)

45. (Currently Amended) The computer readable medium of claim 1, wherein each of said events ~~each~~ comprises an enable/disable state, wherein each event that is in the disable state precludes the event logging mechanism from creating an event object for the event, wherein the creating and storing are performed for each event that is in the enabled state.

46. (Currently Amended) A method of logging events for a plurality of applications that operate on an operating system of a first computer, the method comprising:

receiving a request from a particular application of said applications to create event objects associated with events of the particular application that have not been logged;

in response to said request, creating the event objects in a first memory space that is separate from a second memory space in which said particular application operates;

from the particular application, receiving temporal data and other data regarding the events;

storing the received data regarding the events in the event objects; ~~and~~

processing the stored data regarding the events in order to produce processed event data for display on a web browser of a second computer that is connected to the first computer through the Internet, wherein said processing ~~the stored data further~~ comprises processing the stored data regarding a plurality of the events in order to group the stored data of the plurality of the events into a plurality of hierarchical sets of events, wherein each hierarchical set comprises a parent event and at least one child event; and

for a set of said hierarchical sets of events, defining a nested hierarchical display of event data for display on said web browser, said nested hierarchical display displaying the parent events at one aligned level in ~~the~~ a hierarchy and displaying the child events at another aligned level in the hierarchy under the corresponding parent events,

wherein said receiving the request, said creating, said receiving the data, said storing, and said processing are performed by an event logging mechanism that is part of said operating system and operates independently from said application on said first computer on which said application operates.

47. (Currently Amended) The method of claim 46, wherein the second computer and the ~~third~~ first computer are the same computer.

48. (Currently Amended) The method of claim 46 further comprising determining whether event logging has been turned on for each of the events.

49. (Currently Amended) The method of claim ~~46~~ 48, wherein said creating, receiving the data, and storing are performed for each event having event logging turned on, ~~wherein a plurality of event objects are created for the plurality of events.~~

50. (Currently Amended) The method of claim 46, wherein the processing further comprises:

aggregating events deemed identical by virtue of the events' context into an aggregate;

computing statistics for each of said aggregates; and
displaying said statistics for each of said aggregate.